

1. A method of forming ferromagnetic inductive cores on the surface of a dielectric material, comprising the steps of:
 - dipping a surface of a dielectric material in a solution containing catalytic metal particles having a slight electrostatic dipole moment when in solution to help the particles attach to the surface of the dielectric material; and
 - placing the surface of the dielectric material in a first metal salt solution in metastable equilibrium with a reducing agent so as to cause a first layer containing metal to be plated upon the surface of the dielectric material containing the catalytic metal particles by a process of electroless plating.
2. The method of claim 1, further comprising the step of, before dipping the dielectric material in the solution of catalytic metal particles, plasma etching the surface of the dielectric material to roughen its surface and to create peaks and valleys in the surface of that material exhibiting van der Waal forces capable of attracting catalytic particles having a slight electrostatic dipole.
3. The method of claim 2, wherein the plasma etching is non-reactive ion etching.
4. The method of claim 1, wherein said ferromagnetic material is phosphorous doped nickel.
5. The method of claim 1, wherein said ferromagnetic material is boron doped nickel.
6. The method of claim 1, wherein the catalytic particles are particles selected from the group consisting of cobalt, palladium, ruthenium, rhodium, platinum, iridium, osmium, nickel, and iron.
7. The method of claim 1,

wherein said first layer is thin layer of relatively conductive metallic material used as a seed layer; and

further comprising the step of, after the formation of said seed layer, placing the surface of the dielectric material in a second metal salt solution in metastable equilibrium with a reducing agent which has a higher concentration of non-metal elements than said first solution so as to cause material to be plated upon the seed layer which is a ferromagnetic material having a lower conductivity than the material of said seed layer.

8. The method of claim 1,

wherein said first layer is thin layer of relatively conductive metallic material used as a seed layer; and

further comprising the step of electroplating less conductive ferromagnetic material onto said seed layer.

9. The method of claim 1, wherein said method forms an inductor core on or between one or more dielectric layers of a printed circuit board.

10. The method of claim 1, wherein said method forms an inductor core on or between one or more dielectric layers of a multichip module.

11. The method of claim 1, wherein said method is used to form an inductor core on or between one or more dielectric layers of an integrated circuit.

12. The method of claim 1, wherein said method is used to form an inductor core on or between one or more dielectric layers of a micro-electromechanical device, and said inductor is used to provide electromagnetically induced movement to a mechanical element of that device.